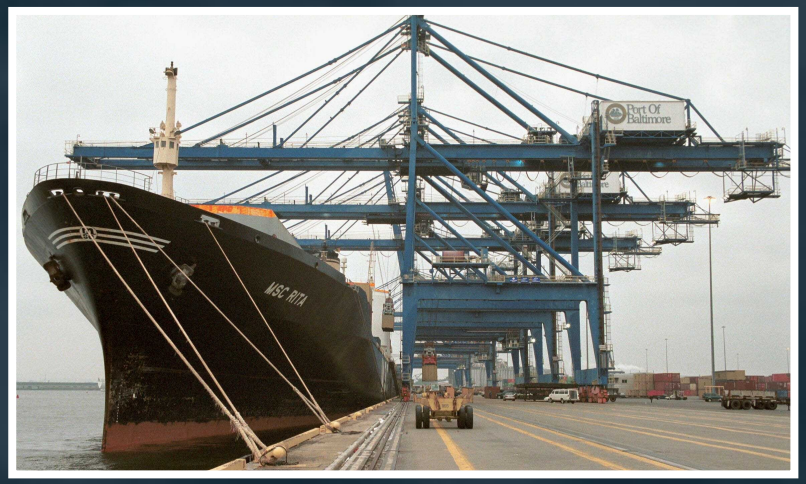
Dredged Material Management Plan for the Port of Baltimore (DMMP)

USACE DMMP & EIS Goals

Develop a plan to maintain channels necessary for navigation

Conduct dredged material placement in an environmentally sound manner

Maximize the use of dredged material as a beneficial resource.



USACE & State DMMP Structure

Governor of Maryland

Executive Committee

Management Committee

Citizens Committee

Harbor Team

Bay Enhancement Working Group (BEWG)
and Scientific and Technical Advisors

Public Involvement

- Public Involved through
  - BEWG & CAC Meetings
  - Public Meetings
  - Newsletters
  - CENAB DMMP & Poplar Island Websites
  - MPA “Safe Passage” Website
  - Review of Draft DMMP & Tiered EIS
- BEWG & CAC provided input to
  - Screening Criteria
  - Evaluation of Alternatives

Justification of Continued Maintenance & Net 20-Year Placement Need

	Annual Benefits	Annual Costs
C&D Canal Approach Channels (35’ depth)	$ 12.1 M	$ 8.5 M
Baltimore Harbor & Channels (50’ depth)	$ 15.3 M	$ 10.8 M

Channel(s)	Net 20-Yr Dredged Material Placement Need
Harbor	17 mcy
C&D and Chesapeake Bay (MD) Approaches	40.4 mcy
Chesapeake Bay Approach (VA)	0 mcy

Local Implementation Constraints

- Maryland State Laws
  - North Point/Rock Point Line
  - Closing of Hart-Miller and Pooles Island sites
  - Prohibition on Open Water Placement
  - 5-Mile Radius Around Hart-Miller Island
- Bay Community/Environmental Constraints
  - No Island Creation
  - Spawning Areas
  - Shallow Water versus Emergent Habitat

Placement Alternatives Development

- All possible alternatives identified in each geographic area
- Compiled the following information for each alternative
  - Relative Capacity
  - Relative Cost
  - Accessibility/Constructability
  - Operability
  - Impacts (Environmental, Recreational, Commercial, Residential, Regulatory)

What alternatives were considered?

- Existing Placement Sites
  - Hart-Miller Island, Poplar Island, Open Water placement, etc.
- New Placement Sites
  - Confined Aquatic Disposal, Confined Disposal Facility, Artificial Island, etc.
- Beneficial Use Sites
  - Island Restoration, Shoreline & Wetland Restoration, etc.
- Innovative Use
  - Building Products, Mines/Quarries, Agricultural Placement

Poplar Island

Screening Criteria

- Quantitative Criteria
  - Cost
  - Capacity
  - Environmental Impact
- Qualitative Criteria
  - Technical/Logistical
  - Implementation

Alternative Suites Development Process – Step 1

- Algorithm developed to create all suites which meet net capacity need (total need – existing capacity) using technically/logistically acceptable alternatives
- Established Anchor Alternatives (large capacity)
  - Example Anchors: Large Island-Mid Bay, Poplar Island Expansion, Norfolk Ocean, etc.
- Combined with small capacity alternatives
  - Example Small Alternatives: Wetlands Restoration, Shoreline Restoration, etc.
- Over **14,000** possible suites

Alternative Suites Development Process – Step 2

- Reduce the number of suites by eliminating those that were clearly inferior to other possible suites.
  - Rule 1: If Suite A has lower costs and higher environmental benefits than Suite B, eliminate B
  - Rule 2: If Suite A has lower costs and the same environmental benefits as Suite B, eliminate Suite B
  - Rule 3: If Suite A has higher environmental benefits and the same costs as Suite B, eliminate Suite B.
- Resulting Suites: **590 Suites** for C&D Approach and Chesapeake Bay (MD)

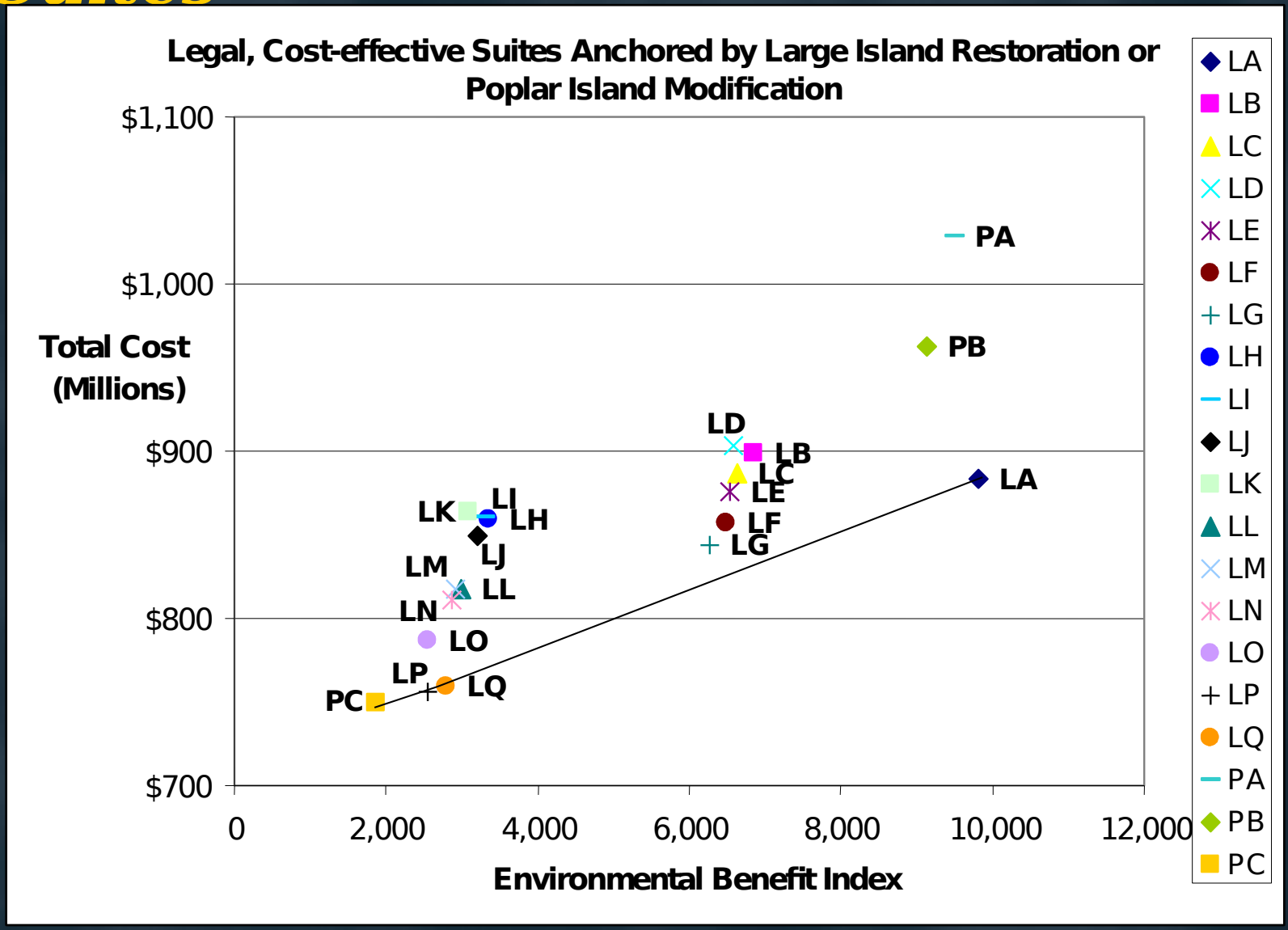
Alternative Suites Development – Step 3

- Eliminated additional suites due to legal and political considerations
  - Alternatives with risk analysis scores of >2
    - Alternatives against state law
    - Alternatives with significant public opposition
- Resulting Suites : **92 Suites** for C&D Approach and Chesapeake Bay (MD) Approach

Recommended Plan Selection

- Chesapeake Bay Approach (VA) Channels
  - All options legal
  - Current capacity sufficient – zero net need
  - **Recommendation**: Continue current operations
  - Harbor Channels
  - Contaminated material capacity requirement (confined disposal facility – CDF)
  - **Recommendation**: Multiple CDF's in Patapsco

C&D and Chesapeake Bay (MD) Approach – Cost Effective & Legal Suites



Recommended Plan

- Optimization of Existing Maryland Sites – Pooles Island, Poplar Island, Hart-Miller Island, and Cox Creek CDF
- Existing Open Water Placement Sites in VA
- Multiple CDFs along Patapsco River
- Poplar Island Expansion
- Large Island Restoration-Mid Bay
- Wetland Restoration-Dorchester County
- Continue investigation of innovative uses

Any Questions?